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INCOME AND HOUSEHOLD EXPENDITURE OF WORKING CLASS FAMILIES WITH CHILDREN

PART II : OUTLAY ON FOOD AND NUTRITION.

In the first part of this paper[1] we gave a general survey of the household expenditure of the 155 families that kept an account for the Institute of Statistics during a fortnight in June-July, 1945. We also analysed the relation between household expenditure and income for the 99 out of 155 families that stated their full income for the period covered by their accounts. In this second part we shall discuss in detail the families' expenditure on food and the nutriment purchased with it and, as far as possible, compare these data with the corresponding ones for 1944.

1. *Total Outlay on Food in* 1944 *and* 1945.

(*a*) Outlay per person and its relation to outlay per ' man '.

It has already been shown in Part I that the average food expenditure per ' man '[2] of the families that supplied comparable budgets for 1944 and 1945, was nearly the same for both years. Indeed, as regards the families whose structure had remained *unchanged*, the figures for both years were practically identical, while a decline of three per cent occurred in the outlay on food of those families whose structure had *changed*, since 1945. ' Man,' however, is an artificial unit, and in dealing with specific data relating to two successive periods the picture is simplified if, instead, we can refer to the natural unit, ' person '. This seems permissible so long as the proportion of families whose structure underwent some fundamental change during the time considered, remains relatively small; for it makes, of course, a considerable difference to the cost of a diet of a given nutritional standard whether the person for whom it is bought is an infant or a grown up man. Thus, the outlay on food per ' man ' of the *unchanged* families was 3 per cent above that of the *changed* families, in 1945; yet their outlay per person was 7 per cent higher, in consequence of the higher ' man ' value per person of the *unchanged* families, *viz.*, 0.78 as compared with 0.75.

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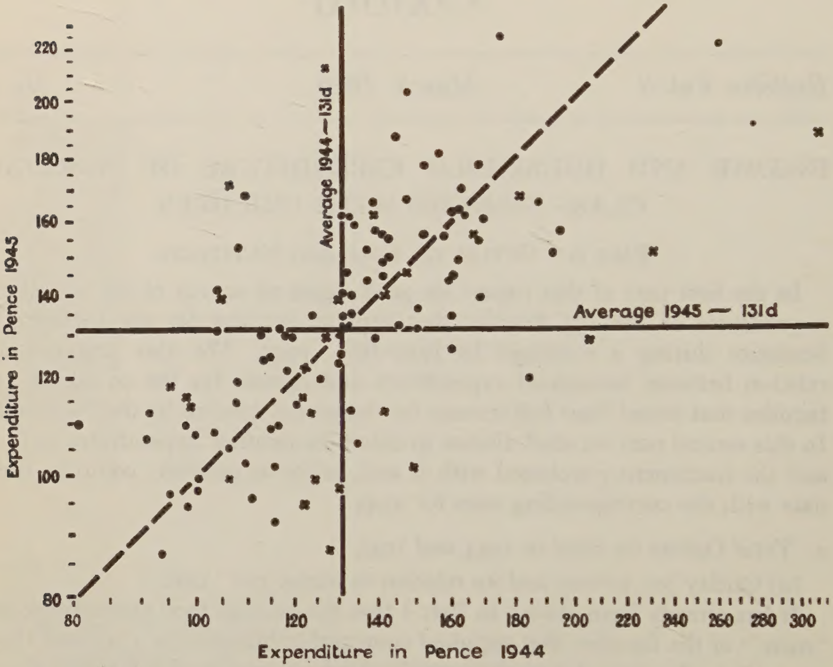
[1] BULLETIN, Vol. 8, No. 2.

[2] For the scale of ' man ' values applied see Table XX, *Institute of Statistics Scale.*

Diagram B: *Changes in Expenditure on Food per Person per Week of* 111 *Families.*[1]



In Diagram B, we have employed different signs for the two types of families; *unchanged* families are indicated by dots, and *changed* ones by crosses. For all these 111 families—85 *unchanged* and 26 *changed*—the average weekly outlay on food per person was the same in both years, amounting to 10 shillings 11 pence.

(*b*) Changes in outlay on food and structure of family.

Those families whose outlay on food remained constant, whatever its absolute figure, will be found in Diagram B along the diagonal. It will be noticed that the marks appear in a fairly dense scatter around that line, thus indicating that for the majority of the families the differences in the outlay on food, for the two periods under survey, were moderate. The Diagram also shows clearly that most of the extreme variations in the expenditure on food occurred with respect to the *changed* families, whose increase or decrease in numbers was frequently unaccompanied by proportionate changes in income. This fact stands out less in the data in Table XII, in particular as regards increases in food expenditure, since, in order to save space, all the families showing an increase of 25 per cent and more, are summarized in one

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[1] Outlay in Pence: 1944 horizontal, 1945 vertical. Logarithmic scales. Dots signify *unchanged*, crosses *changed* families.

TABLE XII

Changes in Food Expenditure since 1944

Food Expenditure 1945 per Person per Week		Index of Food Expenditure per Person : 1944=100 under 85	85–94	95–104	105–114	115–124	125 and over	Total
				Number of Families				
under 9s.	Unchanged	2	4	4	1	–	–	11
	Changed	*5*	*1*	*1*	–	–	–	*7*
9s.—10s.	Unchanged	2	1	4	3	3	1	14
	Changed	*1*	*1*	*1*	*1*	*1*	–	*5*
10s.—11s.	Unchanged	1	4	2	6	–	1	14
	Changed	*1*	–	*2*	–	–	–	*3*
11s.—12s.	Unchanged	2	3	4	2	–	1	12
	Changed	–	–	*1*	*1*	–	*1*	*3*
12s.—13s.	Unchanged	1	2	5	4	–	1	13
	Changed	*1*	*1*	*1*	–	–	–	*3*
13s.—14s.	Unchanged	1	2	3	2	4	–	12
	Changed	–	*1*	–	–	*1*	–	*2*
14s. and over	Unchanged	1	–	1	1	2	4	9
	Changed	*1*	–	–	–	–	*2*	*3*
Total	Unchanged	10	16	23	19	9	8	85
	Changed	*9*	*4*	*6*	*2*	*2*	*3*	*26*

column. There were, in our sample of 111 families, two *changed* families whose weekly outlay on food per person, in 1945, was 166 and 160 per cent respectively, of that in 1944. The next two in this sequence were *unchanged* families, with an outlay on food in 1945, of 153 and 140 per cent of their outlay in 1944. Conversely, at the lower end, there were five *changed* families that in 1945 spent less than 70 per cent of their outlay on food in 1944, and only one *unchanged* family.[1]

(*c*) Changes in outlay on food resulting from changes in supply.

Expenditure on food is, of course, the more flexible, in relation to non-food expenditure, the larger the margin available for luxuries and semi-luxuries. A family whose income is too low to allow for the purchase of anything but the bare necessities will tend to exhibit for two periods with approximately identical price level, a much more rigid pattern of expenditure than one that can exercise a certain amount of choice. The variations in the total expenditure of the latter type of family are likely to be the more erratic the less normal the conditions of supply, and semi-luxury foods—cake, the more expensive kinds of fish and vegetables, etc.—may be substituted for unobtainable non-food luxuries, or, even, necessities, or *vice versa*. We have an indication of this in the somewhat looser scatter of dots—signifying *unchanged* families, few of which seemed to have experienced substantial changes in income—in the quadrant enclosing the families with an expenditure above the average in both years, while in that referring to expenditures below the averages it was mainly changes in the structure of a family that caused substantial alterations in the outlay on food per person. If, in these cases, the addition to the family was a new-born infant, a decline in the standard of nutrition, as expressed in the outlay per person, may be more apparent than real.

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[1] The percentage change from 1944 to 1945 is measured by the vertical distance from the diagonal in Diagram B. The percentage scale is contained in the left hand scale of the Diagram, beginning at 100.

(*d*) Three families with low expenditure on food.

The weekly cost of a minimum diet providing satisfactory nutrition was, in summer 1945, about 10 shillings per ' man ', or 7 shillings 6 pence per person with a ' man ' value of 0.75.[1] It will be seen that there was only one *unchanged* family with a food expenditure per person of about that magnitude. This family—husband, wife, and five dependent children—had a ' man ' value per person, in 1945, of 0.71. The housewife appeared to be a very efficient manager and provided a fairly satisfactory diet for the small outlay. The *changed* family that, in 1945, spent nearly as little on food per person, had an average ' man ' value of only 0.62. It comprised six persons, one earner and four dependent children. A baby was born since June 1944. The nutrition of this family was poor. Two points of Government milk[2] were bought daily for two infants, and only one additional pint for the other four members of the family. Few vegetables were eaten, and these mostly of the more expensive type, *viz.*, tomatoes and tinned beans. The family with the third lowest expenditure per person was an *unchanged* one, consisting of two earners and five non-earners, with an average ' man ' value of 0.64. Their weekly outlay on food per person was 7 shillings 7½ pence, and per ' man ' 11 shillings 11 pence, and hence well above that required for a minimum diet.

(*e*) Normal distribution of indices of food expenditure in 1945.

The two bottom rows in Table XII give the numbers of families in relation to their food expenditure per person in 1945, as compared with 1944. The distribution indicates a ' normal ' pattern for the *unchanged* families. For the reasons discussed no ' normality ' could be expected as regards the numbers of *changed* families. If we had extended our scale of indices further at both ends, the picture for these families would have been a level undulating between 4 and 6 from the index 65 to the central group, and then jumping down to 2 or 1, which is the general outline one might have predicted for a period when changes in the number of persons were erratic—unless, indeed, these changes had been accompanied by proportionate changes in the family income.

2. *The Pattern of Food Expenditure and Consumption.*

(*a*) Changes in relative expenditure on food groups.

In Table XIII, the relative outlay on the main categories of foods is set out for the *unchanged*, *changed*, and *new* families. In the lower part are given the weekly expenditure on food per person and per ' man ', and this is compared with the corresponding total household expenditure. The group ' bread and cereals ' includes flour, cake, biscuits, ready-to-eat breakfast

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[1] *Cf : Proper Nutrition at Low Cost*, BULLETIN, Vol. 7, No. 17.

[2] *I.e.*, milk supplied under the Government scheme to children up to the age of five and expectant mothers, at 2 pence a pint per day.

Table XIII

Relative Expenditure on Food Groups

	Unchanged Families (85)		Changed Families (26)		New Fams. 44
	1944	1945	1944	1945	1945
Bread and Cereals	15.1	15.4	15.1	16.9	16.8
Fats[1]	1.1	0.6	1.1	0.5	0.7
Meat and Meat Products ...	21.6	19.1	22.6	20.6	19.4
Fish	4.1	5.2	5.7	5.4	3.9
Dairy Produce	21.6	20.6	21.6	21.1	20.6
Groceries	8.9	7.7	8.2	7.6	7.6
Potatoes	4.8	5.6	4.2	5.1	6.1
Other Vegetables and Fruit ...	9.6	13.2	8.0	10.9	10.7
Other Foods[2]	13.2	12.6	13.5	11.9	14.2
Total	100.0	100.0	100.0	100.0	100.0

Weekly Expenditure on Food and Total Expenditure

	Unchanged 1944	Unchanged 1945	Changed 1944	Changed 1945	New Fams. 1945
Food Expenditure :					
per Person	10/11	11/1¾	10/11½	10/4¾	10/11
per 'Man'	14/3½	14/4	14/3¾	13/11	14/2½
Total Expenditure :					
per Person	24/2½	23/11½	20/5¼	19/8	24/4½
per 'Man'	31/8½	30/9¾	26/8	26/4	31/8½

[1] Cooking fats only ; butter and margarine are included under Dairy Produce.

[2] Including canteen meals, meals at school, etc.

cereals, rolled oats, rice, semolina, macaroni, and similar products. That of ' meat and meat products ' comprises butchers' meat, bacon, cooked, tinned, and potted meat, offals, sausages, and meat pies. 'Fish ' refers to all kinds of fish—wet, cured, potted, fried, and tinned. ' Dairy produce ' is taken to mean not only milk, cheese, butter, and eggs—dried and in shell—but also margarine; the ' fat ' group therefore only represents the outlay on lard, cooking fat, dripping, and suet. Amongst ' other vegetables and fruit ' are included also dried legumes, tinned vegetables, and dried fruit. Sugar, tea, cocoa, jam, syrup, and honey, constitute the ' groceries ' group. ' All other foods ' include all meals bought away from home, besides condiments, all kinds of fancy foods, and sweets.

It will be noticed that there occurred some slight but distinct shifts in the relative outlay on some of the food groups, in the budgets of the comparable families—the *unchanged* and the *changed* ones. The most marked of these shifts is the upward movement in the outlay on other ' vegetables and fruit '. It reflects the consumption of larger quantities of relatively expensive spring vegetables and salads, and does not indicate the purchase of larger quantities of vegetables in general. Very little fresh fruit was obtainable during the period of our inquiry. Outlay on potatoes was increased because old potatoes were scarce and new potatoes were released in larger quantities in 1945 than during the slightly earlier period in 1944. The decline in the outlay on ' fats ' is concomitant to the reduction in the ration of cooking fat, which ration amounted, per person per week, to one ounce, in 1945, and to two ounces, in 1944. Smaller purchases of cooked meat, rationed or points, account for the smaller share in total food expenditure of the ' meat ' group, in 1945.

(*b*) Consumption of the main rationed foods and of milk.

Table XIV deals with the main foods—excepting the staple carbohydrate foods and vegetables—bought per ordinary ration book, *i.e.*, per ration book of a person over 5 years old.[1] The list includes, besides the main rationed foods, also unrationed fats and milk, of which latter the supply is somewhat elastic in response to demand during the months of June and July.[2] Of cheese the consumption is shown after deducting all special rations allowed to heavy workers, the inclusion of which would, of course, distort the averages. Weekly milk consumption is given, first, for all milk per person, and, secondly, for Government milk and school milk only, in relation to the number of children entitled to it. Since the school milk is actually consumed at school, the averages per child for this item are more significant than those for Government milk, which is received by the families at home and may or may not go entirely to the infants entitled to it. This point will be discussed in some detail in the *Appendix*.

Smaller quantities were obtained in 1945 than in 1944, of bacon, fats, jam, and some of the ' points ' foods. All these changes are connected more or less directly with changes in the rations allowed per person over 5 years old. In June and July 1945, only three ounces of bacon per week could be bought instead of four in 1944, and only one ounce of cooking fat instead of two. The combined sugar and jam ration in 1945 was 12 ounces per week, sugar and jam being interchangeable weight per weight. In 1944, the ration was the same if taken up in the form of sugar, but twice the weight in jam. The number of ' points ' available per person per week had declined from 6 to 5, which may account for the decline in the purchases of certain points foods, enumerated in Table XIV.[3]

(*c*) Changes in the number of ' points ' and the effect on demand.

The figures for cereals in Table XIV exclude rolled oats and oatmeal, and refer mainly to ready-to-eat breakfast cereals. It is interesting to find that while less of these foods were bought in 1945 more oat products were eaten, possibly because they require fewer ' points ' : for a lb. of oats two ' points ' have to be surrendered, while twelve ounces of breakfast cereals need four. Also, rolled oats are much cheaper than the breakfast cereals, of which twelve ounces cost approximately a shilling, while a lb. of rolled oats costs 3½ pence; but the prices for these two types of food were the same in 1944 and in 1945, and are thus unlikely to have affected the relative demand in 1945. The

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[1] In both, summer 1944 and 1945, a child up the age of five could obtain no tea and was only allowed half of the adult meat ration. On the other hand, it was entitled to a pint of Government milk a day, at 2 pence a pint, and to a special allowance of eggs.

[2] At least for those who are fortunate enough to be supplied by a retailer whose production of milk is high during this period.

[3] The other main rations per week, for a person over 5 years old, were, in June-July 1945 : meat, 1 shilling 2 pence worth ; tea, 2 ounces ; butter (or magarine), 2 ounces ; margarine, 4 ounces ; cheese, 2 ounces. Supplies of eggs varied, but one-third of a packet of dried eggs —equivalent to three eggs—was available. Extra allowances of eggs were given to young children and expectant mothers, but no adjustment has been made with respect to this in calculating our figures for Table XIV.

TABLE XIV

Weekly Consumption of Foods per Adult Ration Book

	Unchanged Families (85)		Changed Families (26)		New Fams. (44)
	1944	1945	1944	1945	1945
Meat[1]	17d.	16½d.	17¾d.	18d.	16¾d.
Bacon	3.9 oz.	2.9 oz.	3.7 oz.	2.5 oz.	2.8 oz.
Tot. Rat. Fats[2] ...	8.0 oz.	7.1 oz.	8.1 oz.	6.9 oz.	7.0 oz.
Butter only	*2.0 oz.*	*2.0 oz.*	*2.1 oz.*	*2.0 oz.*	*2.0 oz.*
Unrat. Fats[3] ...	0.4 oz.	0.3 oz.	0.2 oz.	0.1 oz.	0.4 oz.
Tea	2.1 oz.	1.9 oz.	1.9 oz.	1.8 oz.	1.8 oz.
Sugar	8.6 oz.	9.9 oz.	8.2 oz.	9.2 oz.	9.4 oz.
Jam[4]	5.5 oz.	3.7 oz.	4.8 oz.	3.4 oz.	4.2 oz.
Cheese	2.0 oz.[5]	2.0 oz.[5]	2.0 oz.[6]	1.9 oz.[6]	1.8 oz.[7]
Eggs, shell[8]	1.4 eggs	1.8 eggs	1.2 eggs	1.3 eggs	1.6 eggs
Eggs, dried[9]	1.6 eggs	1.3 eggs	1.3 eggs	1.2 eggs	1.1 eggs
Foods Rationed on Points :					
Cooked Meat[10] ...	1.5 oz.	0.9 oz.	1.7 oz.	1.0 oz.	1.1 oz.
Tinned Meat[11] ...	¼d.	½d.	½d.	¼d.	½d.
Tinned Fish	¾d.	1d.	1d.	1d.	¾d.
Tinned Peas & Beans	½d.	¾d.	½d.	½d.	¾d.
Cereals[12]	2.7 oz.	1.8 oz.	2.6 oz.	1.5 oz.	1.7 oz.
Dried Legumes[13] ...	1.3 oz.	0.5 oz.	1.3 oz.	0.5 oz.	0.3 oz.
Dried Fruit	2.4 oz.	2.4 oz.	1.2 oz.	0.9 oz.	1.3 oz.
Syrup and Treacle ...	1.2 oz.	1.0 oz.	0.8 oz.	1.1 oz.	0.6 oz.

Milk Consumption per Person

Milk, total[14]	5.1 pt.	4.8 pt.	4.9 pt.	4.6 pt.	4.8 pt.
Of this :					
Ordinary	*3.1 pt.*	*3.0 pt.*	*3.1 pt.*	*2.7 pt.*	*3.0 pt.*
Government	*1.1 pt.*	*0.9 pt.*	*1.1 pt.*	*1.3 pt.*	*1.0 pt.*
School	*0.7 pt.*	*0.7 pt.*	*0.5 pt*	*0.5 pt*	*0.6 pt.*
Tinned[15] & Household	*0.2 pt.*	*0.2 pt.*	*0.2 pt.*	*0.1 pt.*	*0.2 pt.*

Actual Consumption of School and Government Milk
per Child per Week

Children under 6 ...	7.0 pt.	7.0 pt.	7.0 pt.	7.0 pt.	7.0 pt.
Child 6—14 ...	2.5 pt.	2.4 pt.	1.8 pt.	1.8 pt.	2.0 pt.

[1] Including offals, but excluding cooked and tinned meat products, and sausages.

[2] Butter, margarine, lard, and cooking fat.

[3] Suet and dripping.

[4] Including honey and marmalade.

[5] Excluding 6 special rations.

[6] Excluding 3 special rations.

[7] Excluding 4 special rations.

[8] The figures refer to consumption per person. No correction has been made for special allowances for children and expectant mothers. The following numbers of eggs from own hens are included : *Unchanged* families, 1944—0.3 ; 1945—0.6 ; *changed* families, 1944—0.03 ; 1945—0.08 ; *new* families, 1945—0.5.

[9] One packet of dried eggs equivalent to 12 eggs in shell.

[10] Including small quantities of unrational cooked meat.

[11] This group overlaps the preceding one. It also includes tinned mixtures of meat and vegetables.

[12] Excluding rolled oats, but including small quantities of unrationed macaroni and semolina. Mainly ready-to-eat breakfast cereals.

[13] Beans, peas, lentils.

[14] The figures in this section show the total quantities of milk obtained per week divided by the total number of persons in the group.

[15] Rationed on points. The combined figures for tinned and Household milk are given in terms of fresh milk.

consumption of rolled oats is given in Table XV, together with that of other foods that bring variety into the diet, and some of which—fish other than tinned fish and cocoa—supplement the rationed foods. The quantities are shown per family per week, first, in relation to those families only that purchased the particular food and, secondly, for all the families of the groups of *unchanged*, *changed*, and *new* families. The number of purchasing families is expressed, for each year, as a percentage of all the families in the respective group, similar to our procedure of calculating the percentage figures in Table VII, Part I.

Unrationed fish was more plentiful in 1945 than in 1944, and more of it was bought by the *unchanged* families. Biscuits, too, were not so scarce as they had been in 1944, and, although rationed, sweet biscuits require only 4 points per lb., and the demand for them was, in general, still greater than the supply. Tinned milk—especially condensed skimmed and sweetened milk, at four ' points ' a tin—could be obtained only in a few places, and was much in demand. Household milk was unrationed during the period covered by our investigation, but was sold only in those shops that had surplus stocks left. Consumption of dried eggs had slightly declined, but of dried eggs and eggs in shell taken together, about as many were eaten in 1945 as in 1944, as is shown by the figures in Table XIV. Excluding the special allowance of dried eggs for young children, the potential consumption of dried eggs per family per week would have been, in 1944, for the *unchanged* families 12.3 and for the *changed* families 16.9 eggs, and, in 1945, for the *unchanged* familes 12.3, for the *changed* families 17.1, and for the *new* ones 14.6 eggs. For the latter year, therefore, the actual consumption of dried eggs by the 155 families of our sample amounted to less than 40 per cent of the potential consumption.[1] Purchases of cooked meat, which is dear in ' points ', costing a ' point ' per ounce, were considerably lower, owing not only to a reduction in the numbers of families buying it, but also to smaller purchases per family.

Dried legumes, which are also rationed on ' points ', were apparently partly replaced by fresh peas, which were bought by most of the families.

(*d*) The main unrationed foods.

The weekly outlay on vegetables, per ' man ' and per person, is given in Table XVI. This Table also summarizes the consumption of the main carbohydrate foods and of the two main unrationed sources of first class protein, *viz.*, fish and sausages. Consumption of both these latter items was higher in 1945 than in 1944, and there was probably still a substantial margin of potential demand that remained unsatisfied because of the limited supply of these foods. Consumption of bread had remained about constant, but fewer potatoes were bought. This was to be expected, since the potatoes eaten in June-July 1945, were mostly new ones, which have a small amount of wastage, while in 1944 the families bought mainly old potatoes of which in early

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[1] Since then, the supply was first halved, *i.e.*, reduced to one packet per person every eight weeks, and since February 4th, 1946, it has been discontinued.

TABLE XV

Distribution Pattern of Purchases of Certain Foods

	No. of Purchasing Families % of Group						Purchasing Families: Consumption per Family per Week					All Families: Consumption per Family per Week				
	Unchanged (85 Fam.)		Changed (26 Fam.)		New (44 Fam.)	Unit	Unchanged		Changed		New	Unchanged (85 Fam.)		Changed (26 Fam.)		New (44 Fam.)
	1944	1945	1944	1945	1945		1944	1945	1944	1945	1945	1944	1945	1944	1945	1945
Fish (*excl. tinned*) ...	77	80	85	89	84	oz.	25.4	32.1	41.8	35.3	25.6	19.4	25.7	35.4	31.2	21.5
Fish, tinned	44	46	58	50	36	*d*	*7½*	*9½*	*10¼*	*11½*	*10*	*3¼*	*4¼*	*6*	*5¾*	*3½*
Meat, cooked	71	54	81	65	55	oz.	8.7	6.6	11.5	8.7	10.0	6.1	3.6	9.3	5.7	5.5
Meat, tinned	14	12	39	8	18	*d*	*7¼*	*14½*	*8¾*	*10*	*15¼*	*1*	*1¾*	*3¼*	*¾*	*2¾*
Eggs, dried[1]	66	55	54	54	50	egg[3]	9.9	9.3	13.7	12.9	10.4	6.5	5.2	7.4	6.9	5.2
Milk, tinned	32	19	19	15	27	tin	0.7	1.3	0.7	1.1	1.1	0.2	0.2	0.1	0.2	0.3
Milk, Household[2] ...	13	12	19	15	5	pint[3]	3.1	2.0	3.6	2.5	3.0	0.4	0.2	0.7	0.4	0.1
Dried Legumes	40	14	39	19	11	oz.	13.3	14.7	19.2	15.2	14.4	5.3	2.1	7.4	2.9	1.6
Rolled Oats	12	24	27	19	23	oz.	20.8	22.7	17.1	26.4	27.2	2.5	5.3	4.6	5.1	6.2
Biscuits	64	81	81	85	66	oz.	9.2	10.6	13.6	15.1	14.4	5.8	8.6	11.0	12.8	9.5
Cocoa	27	26	58	19	21	oz.	3.7	4.5	4.4	6.4	5.6	1.0	1.2	2.5	1.2	1.1
Dried Fruit	72	67	58	39	57	oz.	13.8	14.8	11.9	13.2	11.4	9.9	9.9	6.9	5.1	6.5
Syrup	34	25	27	39	16	oz.	14.9	16.4	16.0	16.8	18.3	5.1	4.1	4.3	6.5	2.9

[1] One packet equals 12 eggs in shell. [2] One tin equals 4 pints of skimmed fresh milk. [3] Equivalent.

summer a large portion has to be discarded in trimmings and peelings. Less flour was purchased in 1945 than in 1944, possibly because the smaller fat ration curtailed home baking and made people resort more to bought substitutes for home-made tea fare.

(*e*) Meals away from home.

The numbers of luncheons and dinners bought away from home, per person over 14 years old and per child, are given in Table XVII. It will be seen that the *unchanged* families—the most significent group for this item—show a decline in the number of meals for adults and an increase in that of children's meals. It is, of course, not possible to generalize from the data obtained for 85 families; if, however, they indicate typical trends it seems to imply that while the habit of school meals is spreading adult people tend to get somewhat tired of canteen food and prefer having their main meal at home, when conditions allow them to do so.

(*f*) Outlay on rationed and unrationed foods.

An outline of the weekly expenditure per ' man ' on rationed and unrationed foods will be found in Table XVIII. The correspondence of the outlay on the several food categories by the different groups of families is striking. The reduction in the purchase of bacon, cooking fat, and jam, shown in Table XIV in their quantitative aspects, are reflected in the decrease in outlay, from 1944 to 1945, on group (1) in Table XVIII. The smaller number of ' points ' available in 1945 lead to a smaller outlay on group (2). Less on the average was also spent on milk, in summer 1945 than in summer 1944; but for this item the decline was small. In spite of the difference in the average price of potatoes bought during the periods of our survey in 1944 and 1945—1½ pence a lb. in 1944, and 2½ pence in 1945[1]—the changes in outlay on group (4) were slight. Outlay on potatoes alone rose by approximately 18 per cent, but it represents only about 40 per cent of the total outlay on group (4), and there was a fall in the outlay on flour, owing to the purchase of smaller quantities, while that on bread had remained practically constant. In Table XVIII, again, the increase in expenditure on vegetables stands out.

3. *Changes in Nutritional Intake.*

(*a*) The standards applied.

That the decline in purchases of the foods in groups (1), (2), and (3)—a decline brought about either by direct changes in rationing or, as regards milk, by a reduced supply of the ' free ' market—had some effect on the average nutritional intake, is borne out by the figures in Table XIX. This Table shows the intake of calories and protein per ' man ' per day, calculated, first, by means of the scales used by us since the beginning of this survey, in 1940, and, secondly, by those supplied to us in 1943 by the Ministry of Health. Both these sets of scales comprise ' man ' values and nutritional values of

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[1] These are the weighted averages for old and new potatoes taken together. Old potatoes cost about a penny a lb. in both years, but new potatoes were 3¾ pence a lb. in 1944, and 2¾ in 1945.

TABLE XVI

Weekly Consumption of the Main Carbohydrate Foods and of Fish, Sausages, and Fresh Fruit and Vegetables

	85 Unchanged Families				26 Changed Families				44 New Fams.	
	per Person		per ' Man '		per Person		per ' Man '		per Person	per 'Man'
	1944	1945	1944	1945	1944	1945	1944	1945	1945	1945
	oz.	oz.	oz.	oz.	oz.	oz.	oz.	oz.	oz.	oz.
Bread	63.6	63.9	83.3	82.1	66.5	66.0	86.8	88.3	68.5	89.1
Flour	9.5	6.9	12.5	8.9	7.9	5.2	10.3	6.9	5.1	6.6
Cake, Buns, Biscuits	8.9	10.2	11.6	13.1	8.5	10.3	11.1	13.8	10.1	13.1
Potatoes, old ...	55.4	11.8	72.5	15.2	52.5	10.1	68.6	13.5	23.9	31.1
Potatoes, new ...	11.6	36.9	15.2	47.4	7.8	37.2	10.2	49.8	35.5	46.0
Rolled Oats ...	0.6	1.3	0.8	1.7	0.8	0.9	1.1	1.2	1.3	1.6
Fish	4.7	6.3	6.2	8.0	6.3	5.5	8.2	7.4	4.4	5.7
Sausages	3.5	3.7	4.6	4.8	3.4	4.1	4.5	5.5	3.1	4.0
Outlay on	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*
Fresh Veg. and Fruit (*excl. potatoes*) ...	*10½*	*16*	*13¾*	*20¾*	*9¼*	*12¾*	*12*	*17*	*13*	*17*

TABLE XVII *Luncheons and Dinners away from Home*

Group of Families	No. of Meals per Week			Av. Price per Meal Bought	
	per Adult	per Child		Adult	Child
		bought	free	d.	d.
Unchanged					
1944 ...	0.99	1.20	0.16	12¼	5
1945 ...	0.77	1.45	0.17	12¾	5¼
Changed					
1944 ...	0.83	1.71	0.08	15	4¾
1945 ...	0.87	1.34	—	14¼	5
New					
1945 ...	1.17	0.96	0.21	14¼	4¾

TABLE XVIII *Expenditure on Rationed and Unrationed Foods*

	Per ' Man ' per Week				
	Unchanged Families		Changed Families		New Fam.
	1944	1945	1944	1945	1945
(1) Specifically Rationed Foods[1]	4/10½	4/4½	4/10	4/5¼	4/4
(2) ' Points ' Rationed Foods ...	1/1¼	1/–	1/2	–/10¾	–/11½
(3) All Milk[2]	1/11¼	1/9¾	1/11	1/9½	1/10¼
(4) Bread, Flour, Potatoes ...	1/11	1/11½	1/9¾	1/10¾	2/1
(5) Fresh Vegetables and Fruit	1/1	1/7¾	–/11½	1/4¼	1/4¼
(6) Other Foods[3]	3/4½	3/6½	3/7½	3/6½	3/7½
Total (1)—(6)	14/3½	14/4	14/3¾	13/11	14/2½

[1] Including all meal offals.

[2] Including dried Household milk and tinned milk, the former actually belonging, in 1944, to group (1) and the latter, in both years, to group (2).

[3] Including wet fish, kippers, and fried fish, sausages, cake and buns, cocoa, unrationed fats, meals bought away from home.

TABLE XIX *Nutritional Intake per ' Man ' per Day*

	Institute Scale (Gross Values)			Ministry of Health Scale (Net Values)		
	Calories	Protein (grammes)		Calories	Protein (grammes)	
Average Requirements :	3,300	100		3,000	70	
Intake :		Total	animal		total	animal
Unch. Families 1944	3,700	117	55	3,400	95	43
Unch. Families 1945	3,400	110	53	3,200	89	41
Changed Families 1944	3,600	118	57	3,300	91	42
Changed Families 1945	3,300	110	53	3,100	85	39
New Families 1945	3,400	110	52	3,100	87	40

foods. The scale of war-time food values evolved by the Ministry of Health has now been superseded by a set of Tables published by the Medical Research Council,[1] but, except for very detailed calculations, the older scale is sufficiently precise, and in order to preserve the continuity of our series we abide by the Ministry of Health scale. The ‘ man ’ values referring to that scale will be found in Table XX, together with the ‘ man ’ values of the Institute of Statistics scale. These latter values have been employed by us throughout this paper for evaluating the relative cost of maintenance within the family of a person of a given age and sex group ; the Ministry of Health scale has been used only, beside our own scale, for calculating the average nutritional intake, for which it provides a gauge more precise than our scale. It should be noticed that the figures of nutritional intake in Table XIX refer to *gross* requirements and *gross* intake with respect to the Institute of Statistics scale, while the figures relating to the Ministry of Health scale give *net* values.

TABLE XX

Scales of ‘ Man ’ Values

Institute of Statistics Scale		Ministry of Health Scale	Calories	Protein
Adults and Juveniles :		*Age Groups* :		
Male, 14+	1.00	21+, male	1.00	1.00
Female, 14+	0.85	21+, female	0.83	0.86
		17—21	1.00	1.29
Children		15—14	1.00	1.43
10—14	0.70	12—15	0.97	1.36
6—9	0.60	7—12	0.70	0.93
3—5	0.50	3—7	0.50	0.71
under 3	0.33	1—3	0.37	0.60
		6—12 months	0.27	0.33
		0—6 months	0.20	0.26

(*b*) Significance of the changes.

The decline in calorific intake and in the intake of second-class protein revealed by the figures in Table XIX is of minor importance. In part it is only apparent, reflecting the smaller quantities of—mainly new—potatoes purchased in 1945, of which, however, probably much less was wasted than of the potatoes bought during our survey in 1944, which were mostly old ones. In any case, so long as bread and flour are unrationed and cheap, no real shortage in calories can occur, while a shortage of second-class protein is, at least, very unlikely. But there were small yet significant reductions in the intake of animal protein, although its average supply was still ample for a satisfactory nutrition.

It certainly was by no means impossible to feed a family in a satisfactory way on a small outlay, in summer 1945. Indeed, differences in the expenditure on food per ‘ man ’, unless they are either very substantial or else result from expenditure on good canteen meals, may make very little difference to the intake of first-class protein, so long as the main sources of first-class protein are rationed and fresh herrings about as plentiful as the more expensive kinds of unrationed fish.[1] Still, the reduction, from 1944 to 1945, of the bacon ration and the reduction in the number of ' points ' with which first-class protein foods might be bought, is likely to have widened the margin of potential malnutrition, for families and for individuals within the families. For apart from the direct curtailment of these foods, the duller the menu the greater the likelihood that it will be rejected in part by members of the family, so that a dietary which gives satisfactory figures of nutritional intake on the average may yet result in practice in unsatisfactory nutrition. Moreover, the smaller the total amount of such first-class protein foods as meat, cheese, and also, eggs in shell, available to a family, the greater the danger that the lion's share of these ' tasty ' foods will go to the adult male earners, while—partly from necessity and partly from choice—the housewife and the junior members will subsist largely on starchy and sugary foods. From 1943 to 1944, our surveys had suggested an upward trend in the intake of animal protein, although the absolute figures obtained by us for the whole sample in 1944 were slightly below those given in Table XIX, owing to slight differences in the structure of the samples for the two years.

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[1] War Memorandum No. 14 (H.M. Stationery Office).

4. *Conclusion.*

This survey of the food expenditure of 155 families, 111 of which had also kept an account in 1944, indicates that the changes in the outlay on food, from summer 1944 to summer 1945, were, on the whole, slight. On the average they cancel out. Some of the rations were smaller in 1945 than they had been in 1944, and the outlay on rationed foods fell in consequence of this. The reduction in the number of ' points ' available curtailed the purchases of ' points ' rationed meats, but had no effect on the purchases of biscuits, which actually rose. Little fresh fruit could be bought, but substantially more was spent on spring vegetables in 1945 than in 1944. In general, the standard of nutrition was about maintained, but a slight downward trend in the average intake of animal protein was indicated, which, although so far no sign of any actual danger, should be taken as a warning signal that requires watching.

T. SCHULZ.

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[1] The amount of animal protein available in a family per ' man ' is, under conditions of rationing and generally restricted supply, affected mainly by three factors : the housewife's skill of catering, the family's taste, and the structure of the family. In order to see the importance of this last point it must be remembered that a new-born child is entitled to the same food rations as an adult man, with the exception of half of the meat ration, which reduction, however, is much more than counter-balanced by the special allowance of milk and eggs to infants. A family with several young children is therefore able to obtain a considerably larger amount of animal protein per ' man ' than a family that has no young children.

APPENDIX

Consumption of Milk.

In Table XIV, we have given the figures of average weekly consumption of all milk, per person, and of milk obtained under the Government scheme and obtained at school, per child entitled to it. All these averages appear satisfactory. Nevertheless, in analysing the data further the disquieting fact emerges that while the majority of the families of our sample had a milk consumption in accordance with their nutritional needs and, in some instances, even well above normal requirements, a minority of families with young children was consuming decidedly too little milk. There is, moreover, a strong indication that in some cases milk obtained for infants under the Government scheme is habitually used in part for other members of the family, without its being replaced by suitable infant foods made of dried milk.

Table 1a

82 Families with No Children under 6 Years Old

Domestic Consumption of Fresh Milk per Person per Week (Figures in columns : Heavy type, total no. of families; below : average nos. per family of persons over 14; children 6—14).

Food p. 'Man' p. Week	under 2 pts.	2 pints +	3 pints +	4 pints +	5 pints +	6 pints and over
10s. +	—	**1** 2.0; 5.0	**1** 2.0; –	**2** 4.5; 0.5	—	—
11s. +	**2** 3.5; 2.5	**4** 3.5; 1.8	**5** 2.8; 1.8	—	—	—
12s. +	—	**1** 2.0; 1.0	**2** 2.5; 2.0	**2** 3.5; 2.5	**3** 2.6; 1.7	—
13s. +	—	**2** 4.5; 2.5	**3** 3.0; 1.3	**2** 3.5; 1.0	**1** 4.0; 1.0	**1** 4.0; 1.0
14s. +	—	**4** 2.0; 2.0	**8** 2.9; 1.4	**4** 3.5; 1.3	—	—
15s. +	—	**3** 2.0; 2.7	**3** 3.0; 1.0	**1** 2.0; 2.0	**2** 1.5; 2.0	**1** 2.0; 1.0
16s. +	—	—	**3** 2.7; 1.0	—	**1** 2.0; 1.0	**1** 2.0; 1.0
17s. +	—	**2** 3.0; 0.5	**3** 2.0; 1.7	**1** 2.0; 1.0	**1** 2.0; 1.0	**2** 1.5; 1.5
18s. +	—	—	**2** 2.5; 0.5	—	—	**1** 2.0; -
19s.& over	—	**1** 1.0; 2.0	**2** 2.0; 1.5	**3** 2.0; 1.3	**1** 2.0; -	—
	2 3.5; 2.5	**18** 2.6; 2.1	**32** 2.7; 1.3	**15** 3.2; 1.3	**9** 2.4; 1.3	**6** 2.2; 1.0

Table 1b

73 Families with Children under 6 Years Old

Domestic Consumption of Fresh Milk *including* Government Milk, per Person per Week (Figures in columns: Heavy type, total no. of families; below: av. nos. per family of persons over 14; children 6—14; children under 6).

Food p. 'Man' per Week	under 2 pints	2 pints +	3 pints +	4 pints +	5 pints +	6 pints and over
under 10s.	—	**1** 3.0; 2.0; 1.0	**2**[1] 2.5; 2.5; 1.5	—	**1** 3.0; –; 1.0	—
10s. +	—	**3** 4.0; 1.0; 1.0	**2** 4.0; 0.5; 1.0	—	—	—
11s. +	**1** 2.0; 1.0; 1.0	**1** 3.0; 3.0; 1.0	**4**[2] 2.5; 3.3; 1.5	**1** 2.0; 3.0; 2.0	**1** 3.0; 1.0; 1.0	—
12s. +	—	—	**5**[3] 3.0; 2.2; 1.4	**5** 2.8; 2.0; 1.4	**2** 2.0; 0.5; 2.0	—
13s. +	—	**1** 2.0; 3.0; 1.0	**4** 2.3;1.5; 1.5	**1** 1.0; 1.0; 1.0	**2** 2.0; 1.0; 1.5	**1** 2.0; 1.0; 2.0
14s. +	—	**1** 6.0; 1.0; 1.0	**2** 2.5; 1.0; 1.5	**1** 1.0; 1.0; 1.0	**1** 2.0; 2.0; 1.0	**1** 2.0; –; 2.0
15s. +	—	—	**1** 2.0; –; 1.0	**5** 2.6; 0.8; 1.0	**2** 2.0; 0.5; 1.5	**2** 2.0; –; 2.0
16s. +	—	—	—	—	**1** 2.0; –; 2.0	**1** 2.0; 1.0; 2.0
17s. +	—	—	—	**1** 2.0; 4.0; 2.0	—	**2** 2.0; 1.0; 1.0
18s. +	—	—	**1** 2.0; 1.0; 1.0	**3** 2.4; 0.3; 1.0	**1** 2.0; 1.0; 1.0	—
19s. & over	—	—	—	**3** 2.0; 0.3; 1.0	**5**[4, 5] 1.4; 0.4; 1.4	**1**[6] 2.0; 1.0; 2.0
	1 2.0; 1.0; 1.0	**7** 3.7; 1.7; 1.0	**21** 2.7; 1.9; 1.4	**20** 2.3; 1.3; 1.2	**16** 2.0; 0.6; 1.4	**8** 2.0; 0.6; 1.8

Ostermilk and similar infant foods were bought per week (one family in each instance): [1] 1/2; [2] 4/1½; [3] 5/–, for 2 infants; [4] 3/9, for 2 infants; [5] 1/3; [6] 4/–, for 2 infants.

A detailed survey of the domestic consumption of fresh milk in June-July 1945, by the 155 families of our sample, will be found in Tables 1a, 1b, and 1c. Table 1a deals with the milk consumption of the 82 families with no children under 6 years old, and Tables 1b and 1c with that of the 73 families with children in the 'under 6' age group, who were receiving Government milk, at 2 pence a pint per child per day. In order to avoid distortions of our averages we have for all the Tables of this *Appendix* placed a child over five years old in the age group of 'under 6' if it still possessed a children's ration book which entitles it to Government milk, and in the higher age group if this had already been exchanged for a juvenile ration book. Thus, all the children in the 'under 6' group in Tables 1b, 1c, and 2, were obtaining Government

Table 1c

73 Families with Children under 6 Years Old.

Domestic Consumption of Fresh Milk *excluding* Government Milk, per Person per Week (Figures in columns : heavy type, total number of families ; below : av. nos. per family of persons over 14 ; children, 6—14; children under 6).

Food per 'Man' p. Week	No ordinary Fresh Milk	under 2 pints	2 pints +	3 pints +	4 pints +	5 pints +	6 pints and over
under 10s.		**2** 3.0; 2.0; 1.5	**1**[3] 2.0; 3.0; 1.0	—	—	**1** 3.0; –; 1.0	—
10s. +	—	**1** 4.0; –; 1.0	**3** 4.0; 1.0; 1.0	**1** 4.0; 1.0; 1.0	—	—	—
11s. +	**1** 2.0; 1.0; 1.0	**1** 2.0; 2.0; 2.0	**5**[4] 2.8; 3.4; 1.4	**1** 3.0; 1.0; 1.0	—	—	—
12s. +	**1**[1] 2.0; –; 2.0	**1** 2.0; 3.0; 2.0	**4** 3.2; 2.3; 1.3	**5** 2.8; 1.8; 1.4	**1** 2.0; 1.0; 2.0	—	—
13s. +	—	**3** 2.0; 1.4; 1.3	**2** 2.5; 2.5; 1.5	**4** 1.8; 1.0; 1.5	—	—	—
14s. +	—	**1** 3.0; 1.0; 2.0	**3** 3.0; 1.0; 1.0	—	—	**1** 2.0; 2.0; 1.0	**1** 2.0; –; 2.0
15s. +	—	**1** 2.0; –; 2.0	**1** 2.0; –; 1.0	**4** 2.0; 0.8; 1.0	**2** 3.5; 1.0; 1.0	**1** 2.0; –; 2.0	**1** 2.0; –; 2.0
16s. +	—	—	—	**1** 2.0; –; 2.0	—	—	**1** 2.0; 1.0; 2.0
17s. +	—	—	—	**1** 2.0; 4.0; 2.0	—	—	**2** 2.0; 1.0; 1.0
18s. +	—	—	**1** 2.0; 1.0; 1.0	**3** 2.4; 0.3; 1.0	**1** 2.0; 1.0; 1.0	—	—
19s. and over	—	**1**[2] 1.0; –; 2.0	—	**4**[5] 1.8; 0.3; 1.3	**3** 1.7; 0.7; 1.0	—	**1**[6] 2.0; 1.0; 2.0
	2 2.0; 0.5; 1.5	**11** 2.4; 1.3; 1.6	**20** 2.9; 2.1; 1.2	**24** 2.2; 1.0; 1.3	**7** 2.3; 0.9; 1.1	**3** 2.3; 0.7; 1.3	**6** 2.0; 0.7; 1.7

Ostermilk and similar infant foods were bought per week (one family in each instance) : [1] 5/-, for 2 infants; [2] 3/9, for 2 infants; [3] 1/2; [4] 4/1½; [5] 1/3; [6] 4/-, for 2 infants.

milk. For the data in Table 1b, Government milk and ordinary fresh milk bought at home have been added together and divided by the total number of persons in the family; for Table 1c, Government milk has been excluded together with the children in receipt of it, *viz.*, all the children in the 'under 6' group. The figures in heavy type in Tables 1a, 1b, and 1c, denote the numbers of families, while below them are shown the average number per family, first, of persons over 14 years old, secondly, of children between 6 and 14 years old, and, thirdly, in Tables 1b and 1c, of children under 6 years old. These two or three figures added together therefore represent the average number of persons per family. In three families expectant mothers were obtaining Government milk; this has been counted as ordinary milk with respect to the data in Tables 1a, 1b, 1c, and 2. We have, however, taken account of these special cases in our calculations for Tables 3 and 4.

The possible domestic consumption of fresh milk, so far as supply conditions in June-July 1945 are concerned, was for most families with children of school age approximately 3½ pints per non-priority consumer per week, although in some cases people were able to obtain considerably more. It will be seen from the percentage figures in Table 2 that 39 per cent of the 82 families represented in Table 1a actually consumed about this quantity per week. More milk was brought by 36.6 per cent of the families, and less by 24.4 per cent. Yet although each child of school age is entitled all the year round to 3½ pints of ordinary milk, at 4 pence a pint, per week, these latter families contained 34.2 per cent of the children of school age and the former only 30.9 per cent.

The data for the 73 families in receipt of Government milk are even more striking: 45.2 per cent of the families had a consumption of fresh milk—excluding Government milk—of under 3 pints per non-priority consumer, and these families comprised 60.9 per cent of the children between 6 and 14 years old, and 46 per cent of the children under 6 years old, of the whole group (Tables 1c and 2, *c*). If, on the other hand, Government milk and the children receiving it are included (Tables 1b and 2, *b*), the proportion of families with a weekly consumption of fresh milk of less than 3 pints falls to 11 per cent, that of the children between 6 and 14 years old to 14.1 per cent, and that of the children under 6 to 8.1 per cent. From Table 1b it will be seen that no infant milk foods were bought by any of these 8 families.[1]

In whichever way therefore we analyse the domestic consumption of fresh milk of the families of our sample, we obtain a considerable proportion whose

TABLE 2

Domestic Consumption of Fresh Milk per Person per Week

	Group Nos.	%	No ordinary fresh milk % of Group	under 2 pts % of Group	2 pts + % of Group	3 pts + % of Group	4 pts + % of Group	5 pts + % of Group	6pts & over % of Group
(a) Families with No Children under 6 Years Old.									
Families	*82*	100	—	2.4	22.0	39.0	18.3	11.0	7.3
Persons over 14	*221*	100	—	3.2	21.7	38.4	21.3	9.5	5.8
Children 6—14	*.123*	100	—	4.1	30.1	34.9	16.2	9.8	4.9
(b) Families with Children under 6 Years Old Government Milk included with Ordinary Milk									
Families	*73*	100	—	1.4	9.6	28.8	27.4	21.9	10.9
Persons under 14	*178*	100	—	1.1	14.6	32.0	25.9	17.4	9.0
Children·6—14	*92*	100	—	1.1	13.0	42.4	27.2	10.9	5.4
Children under 6	*98*	100	—	1.0	7.1	29.6	24.5	23.5	14.3
(c) Families with Children under 6 Years Old Excluding Government Milk and Children receiving it : (all Children under 6 Years Old).									
Families ...	*73*	100	2.7	15.1	27.4	32.9	9.6	4.1	8.2
Persons over 14	*178*	100	2.3	14.6	33.2	30.3	9.0	3.9	6.7
Children 6—14	*92*	100	1.1	15.2	44.6	26.1	6.5	2.2	4.3
Children under 6	*98*	100	3.1	18.4	24.5	31.6	8.1	4.1	10.2

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[1] One infant, however, attended a nursery school where he obtained 1⅔ pints of milk per week.

average intake was too low as compared with their average nutritional requirements. In particular it appears that in some families the priority milk supplied to infants or nursing mothers was used partly for other members of the family—unless we are prepared to assume that the average milk consumption of all the non-priority consumers in these families was disproportionately small and, in one instance, negative.

The vital importance of a satisfactory intake of milk by infants and nursing mothers seems, in fact, not yet fully realized by a number of housewives. There were in our samples 28 families who had also supplied an account in June-July 1944, and whose allowance of Government milk was different in 1945 from that in 1944. It was therefore possible to compare their milk consumption during the two periods in order to find out whether and to what extent the changes in the supply of Government milk were reflected in the figures of their average consumption of milk. Since neither in summer 1944 nor in summer 1945 a family could expect to obtain more much than 3 pints per non-priority consumer, we assumed that variations in the consumption of ordinary milk above that figure were independent of changes in the family's allowance of Government milk and due to accidental fluctuations in supply. We then found that changes in the supply of Government milk had left the consumption per non-priority consumer either unaffected or, if it had varied, had not lowered it to less than 3 pints, in the case of 13 of these 28 families. Indeed, eleven of the 13 families showed for both periods a weekly consumption per non-priority consumer of 3½ pints or more.

The weekly consumption of the remaining 15 families is set out in Table 3, which gives for each family the number of persons, the number of children between 6 and 14 years old, and the number of children below that age group. The absolute figures of milk consumption per week, including and excluding Government milk and the persons receiving it, are shown for the sampling period in 1945 and expressed, in the last two columns, as index figures on the base of the corresponding milk consumption of each family during the sampling period in 1944. The first nine families in Table 3 received more Government milk in 1944 and the remaining six had more in 1945. The indices of *total* average milk consumption—including, for both years, Government milk and the persons receiving it—keep, on the whole, much closer to their 1944 base than those that exclude Government milk and its recipients. The children of the families nos. (6), (8), and (10), had no milk at school, while 2 children of family (2), 2 of family (4), and all the children of school-age of families (1), (11), (12), and (13), consumed per week at school 1⅔ pints. All the children of school age of the remaining 4 families took each 3⅓ pints weekly at school.

It thus appears that a low domestic consumption of milk is at least sometimes accompanied by a high consumption of school milk. To what extent this holds good for the families of our sample is demonstrated in some detail in Table 4. For this Table we have calculated the weekly domestic con-

TABLE 3

Ordinary Domestic Milk Consumption Affected by Government Milk

Pers. in Family		Children 6–14[1]	under 6[2]	'Man' Value per Person	Outlay on Food p. 'Man' p. Week	Fresh Milk Consumpt. per Week p. Person[3]	Fresh Milk Consumpt. per Week Non-prior Person[4]	Index of Fresh Milk Consumpt. p. Person[3] (1944=100)	Index of Fresh Milk Consumpt. Non-prior Person[4] (1944=100)
(1)	7	5*p*	—	0.71	10/2½	2.57	2.57	100	140
(2)	8	3*p*	1	0.79	11/9½	3.06	2.50	66	71
(3)	4	1*p*	1	0.72	11/11½	1.75	—[5]	39	—[6]
(4)	9	4*p*	2	0.70	13/7	3.11	2.00	141	1429
(5)	5	3*p*	—	0.75	14/4½	2.20	2.20	100	220
(6)	3	1*p*	—	0.78	14/5¼	2.67	2.67	57	76
(7)	5	3*p*	—	0.71	14/6¼	2.80	2.80	90	131
(8)	3	1*p*	1	0.62	14/8¾	4.17	2.75	83	275
(9)	4	1*p*	1	0.85	16/9	3.75	3.75	107	128[7]
(10)	6	1	1*c*	0.76	11/5	2.83	2.00	106	75
(11)	10	5	2*c*	0.68	11/7¼	3.45	2.56	93	74
(12)	6	2	2*c*	0.62	11/8¾	3.50	1.75	83	50
(13)	5[8]	2	1	0.66	12/2¾	4.20	2.33	100	67
(14)	4	—	2*c*	0.67	12/7½	3.50	—[9]	70	—[10]
(15)	3	—	2*c*	0.50	21/2½	5.00	1.00[11]	94	22

[1] A *p* after the figures in this column indicates that one child in this group was in receipt of Government milk, at 2 pence a pint per day, in 1944.

[2] A *c* after the figures in this column indicates that a child was born, since June 1944.

[3] Ordinary milk and Government milk divided by the number of persons.

[4] Total ordinary milk divided by the number of persons not in receipt of Government milk.

[5] In 1945, the family was able to obtain sweetened condensed (skimmed) milk, of which their average weekly consumption per non-priority consumer was equivalent to 1⅔ pints of fresh skimmed milk. [6] 2 pints in 1944. [7] In 1944, 2/6 per week spent on Ostermilk. [8]The family obtained per week 7 pints of Government milk for an infant and 7 pints for an expectant mother. [9] 5/– per week spent on Ostermilk. [10] Non-priority consumption in 1944 was 4 pints per week. [11] 3/9 per week spent on Ostermilk.

TABLE 4

Consumption of School Milk and Domestic Consumption of Non-Priority Milk

(The figures in *italics* show the numbers of families and the figures in ordinary type the numbers of children at school.)

School Milk per Child per Week	Domestic Consumption of Fresh, Tinned, and Household Milk in Terms of Liquid Milk Per Non-Priority Consumer per Week: under 2 pints	2 pints +	3 pints +	4 pints +	5 pints +	6 pints +	7 pints and over
	(*a*) *Families with No Children under* 6 *Years Old*						
None ...	*1* : 4	*5* : 6	*2*[2] : 3	*2*[4] : 2	*3* : 5	—	—
1⅔ pints ...	—	*5*[1] : 9	*13*[3] : 18	*11*[5] : 17	*6* : 8	*3*[6] : 5	*1* : 1
3⅓ pints ...	—	*9* : 20	*12* : 16	*6* : 10	—	*1* : 1	*2* : 2
(*73* : 127)	*1* : 4	*17* : 35	*25* : 37	*15* : 29	*9* : 13	*3* : 6	*3* : 3
	(*b*) *Families with Children under 6 Years Old*						
None ...	—	*7*[8] : 10	*2* : 2	*3* : 3	—	—	—
1⅔ pints ...	*4*[7] : 8	*9* : 21	*7*[9] : 15	*2* : 3	*1* : 1	—	*1* : 1
3⅓ pints ...	*5* : 8	*6* : 10	*6* : 12	*3* : 4	*1* : 1	*1* : 2	*1* : 2
(*53* : 103)	*8* :16	*18* : 41	*14* : 29	*8* : 10	*2* : 2	*1* : 2	*2* : 3

Milk at school was obtained by other children of the same families: [1]*2* : 3, 3⅓ pints; [2]*1* : 1, 1⅔ pints; [3]*1* : 1, 3⅓ pints; [4]*1* : 1, 1⅔ pints; [5]*3* : 4, 3⅓ pints; [6]*1* : 1, 3⅓ pints; [7]*1* :1, 3⅓ pints; [8]*4* : 7, 1⅔ pints; [9]*1* : 1, 3⅓ pints.

sumption of *all* milk[1] excluding Government milk, per non-priority consumer, and compared this with the milk taken per child at school, for the 73 families that had children at schools where they could obtain milk, but that received no Government milk, and for the 53 families that, besides having children at school, also included infants or expectant mothers in receipt of Government milk. Children at school over 14 years of age are counted in Table 4, but only if it was stated that they were taking milk at school, since in some cases we could not be certain that milk was available to them. In Group (*b*) in Table 4, there are 10 children who had an allowance of Government milk and also took milk—in eight cases 1⅔ pints and in two 3⅓ pints a week—at a nursery school. Nine of these ten children came from families with a domestic consumption of non-priority milk of 3 pints and over.

In both group (*a*) and (*b*), there were 10 children each from homes where milk consumption was low and who drank no milk at school. The 10 children of group (*b*) belonged to 7 different families, four of which had 7 other children that obtained per week 1⅔ pints of school milk. This ‘ overlapping ’ is a feature that occurred in several instances, and it was interesting to find that no family with one or several children that drank no milk at school had another child taking more than 1⅔ pints a week. On the other hand, in the group of families whose children had 1⅔ pints there were some with other children consuming 3⅓ pints weekly.

In a few families, poverty—due to low earnings per head or to a low housekeeping allowance—may have been the direct cause of the children's low milk consumption, although school milk, at 1½ pence a pint, and Government milk, at 2 pence a pint, are about the cheapest body building foods that a mother can buy for her children. To some extent, the general dietary habits of the family seem to determine the children's milk consumption at school as well as at home, and in particular the feeling that milk is a food for babies, appears to act as a deterrent to its consumption with some older children and, especially, with boys.

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[1] Including condensed, evaporated, and Household Milk.

READJUSTMENT PROBLEMS IN SWEDEN

The reconversion problems in Sweden are evidently very small as compared with those in the United States and England; in Sweden demobilized service men as well as the workers released from the production of munitions and substitutes have quickly and almost without friction been absorbed by expanding civil production. It is a characteristic feature of the transition period that the total effective demand for goods and services tends to exceed the current supply. Production is in many fields limited by ' bottle-necks ', such as scarcity of skilled labour and coal. In Sweden the relatively low level of imports during the second half of 1944 and the whole of 1945 has led to a fairly narrow margin for the expansion of output in many industries. Scarcity of coal is here—as in most other countries—the most serious obstacle. On the other hand, the high level of demand is determined by exports, investment and consumers' outlays. As is shown below the demand for Swedish export goods has expanded rapidly since the end of the war in Europe. The potential demand far exceeds the productive capacity. The same is true of investment ; the supply of building materials is insufficient in relation to the actual plans for housebuilding and investment plans in industry. In the field of consumption, current sales have caused a rapid reduction of stocks in several branches.

This situation, marked by the excess of demand over supply in most branches of the country's economy, involves, as it did during the war, an upward pressure on prices. In Sweden, as in the U.S.A. and England, this tendency is held in check by continued price control and governmental regulation of consumption in those fields in which a shortage prevails. In Sweden the volume of exports and investment is to a large extent under official control. Some consumption regulations have been abolished, but bread, butter and meat are still rationed.

How long this transition-period will last depends as far as Sweden is concerned almost wholly upon the development of her foreign trade. As long as the volume of imports remains far below the pre-war level, the present scarcity will prevail, and the expansion of production and exports will be curbed.

When imports become available in sufficient volume, a fairly rapid rate of increase in the real national income seems possible. According to very approximate calculations, real production per head of the productive population had in 1944—after a dip in the first war years—again reached the pre-war level. An expansion of foreign trade should, as it did after the First World War, cause a rapid revival in productivity. This assumption is supported by the fact that, as shown in a previous report from the Swedish Institute of Economic Research,[1] the volume of investment during the war period was maintained at a relatively high level. Under very favourable foreign-trade conditions, it is possible to conceive a rapid increase in the real national income (according to a forecast bringing it up in 1950 to a level 25—30 per cent above that of 1939). Even in this case it is unlikely that there would arise an over-saving or under-consumption crisis of the same kind as that now being discussed as a probable development in the U.S.A. during the third phase of the post-war period. As in the inter-war period, it is likely that a depression will be transferred to the Swedish economy by way of its foreign trade, primarily owing to a decline in exports. If the conditions of foreign trade should remain as they are now or should subsequently become unfavourable (on account of adverse exchange conditions or low volumes of trade) the Swedish economy might—even under conditions of full employment—to a large extent retain its present character of a general scarcity of means in relation to needs. The American dilemma of surplus productive capacity would not arise, and the Swedish situation would in that case present similarities with the probable development in England as it is usually foreshadowed.

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[1] Meddelanden frän konjunkturinstitutet. Ser. A:12. Stockholm 1945.

During the spring of 1945 Sweden's foreign trade declined to the lowest level of the war period. The trade with the European continent stopped in the autumn 1944, and the ' safe-conduct ' traffic with the Western Powers had practically ceased at the turn of the year. The value of exports was only about 30 million Kronor in April 1945; the corresponding figure for imports about 40 million Kronor. Before the war the monthly value of exports was about 150 million Kronor and that of imports somewhat higher. After the end of the European war exports increased very rapidly and already in August had reached an amount of 250 million Kronor. This level was maintained throughout the rest of the year. Imports showed a slower increase, from 40 million Kronor in July to 160 million Kronor in November. As a result of this development the balance of trade was radically changed. This is shown in the following table:

TABLE I

Monthly Foreign Trade 1945

Million Kronor

1945	Exports	Imports	Export surplus
January	26	106	— 80
February	31	52	— 21
March	35	67	— 32
April	31	41	— 10
May	44	48	— 4
June	125	50	+ 75
July	209	40	+169
August	268	69	+199
September	245	135	+110
October	266	162	+104
November	238	160	+ 78

While for the months January–May 1945 Sweden had an import surplus of about 150 million Kronor, the foreign trade during the months June–November resulted in an export surplus of no less than 725 million Kronor.

About 60 per cent of this export surplus fell on Norway and Great Britain; the rest was fairly evenly distributed between the United States, Denmark, Belgium, France, Finland and the Netherlands. The export surpluses to all these countries except the United States have in the main been financed by means of Swedish State credits. In the case of Great Britain the credit has been a pure currency credit; in the other cases there have generally been ordinary loans.

TABLE II

Trade with Different Countries June—October 1945

Million Kronor

	Exports	Imports	Export surplus
All countries	1,113	456	657
Norway	241	29	212
Great Britain ...	212	26	186
United States ...	145	69	76
Denmark	88	29	59
Belgium	45	5	40
France	38	2	36
Finland	55	18	37
The Netherlands ...	39	11	28

It has been estimated that the volume of exports in the last quarter of 1945 was about 80 per cent of the average for the years 1936–38. The volume of imports for the same quarter does not seem to have reached half the pre-war level. The changes in the volume of trade (calculated in prices of 1936–38) since before the war are shown in the following table :

Index : 1936–38=100	1944	1945		
		1st Qu.	2nd Qu.	4rd Qu.
Volume of Exports	23	7	20	75
Volume of Imports	44	22	13	32

The great changes in the composition of the foreign trade, however, make any appraisement on this point uncertain. The high level of exports during the second half of 1945 has been made possible only through a great reduction in the inventories of some of the leading export industries. These inventories had been brought up to a very high level by the time the hostilities in Europe ceased.

The total sales of sawn and planed wood for export in 1945 amounted to about 650,000 standards or nearly as much as in 1937 and 1938. Home consumption seems to have been of the same order or slightly greater. During 1945 the total production of wood ranged between 900,000 and 1,000,000 standards. The stocks at the saw-mills must therefore have been reduced by 300,000 or 400,000 standards. Taking into account the decline in the stocks of logs, the total stock reduction during 1945 has been estimated to represent about half a million standards. The total export of cellulose in 1945 was about 1,450,000 tons of chemical pulp and about 200,000 tons of mechanical pulp. The corresponding figures for 1939 were about 2,000,000 and 300,000 tons. Practically all of this was exported after the cessation of hostilities, and nearly half of the chemical pulp came from stocks. The value of the exports of engineering products for the months June–November 1945 amounted to about 230 million Kronor. This figure includes the export to Norway of vessels built during the war for more than 100 million Kronor. The iron-ore exports have been small, less than one million tons for the months January–November 1945.

The future prospects of exports depend on the development of imports in general and that of coal in particular. The stocks in the forest industries have now reached such a low level that export and home-market consumption of wood and pulp cannot exceed the actual production. The volume of production is ultimately a question of distribution of man-power, which is very intimately bound up with the future of coal imports. With great simplification the problem might be put in this way : the greater the coal imports, the less the need for cutting wood for fuel and the greater the possibilities of exporting wood, pulp and paper. The import of coal and coke has, however, up to now been very unsatisfactory. During the first five months of 1945 imports were practically nil, and to the end of November only about 250,000 tons had been imported. This figure should be compared with the normal pre-war imports of 7 to 9 million tons per year. The import prospects in general seem to be brighter than for coal. In some cases, as for instance in regard to mineral oils, certain metals and wool and cotton, imports have already reached the pre-war level.

Besides exports, investment has been a determining factor in the high level of employment during 1945. Both building of dwelling houses and industrial investment were planned to increase considerably in 1945 as compared with 1944. The rise in actual building activities has been smaller than was planned owing to a general scarcity of constructional materials. The deficiency was aggravated through a protracted strike in the engineering industries for five months in 1945, which moreover delayed the installation of new machinery in industry. Nevertheless private investment as a whole seem to have been somewhat larger during 1945 than during 1944. At the same time public investment has diminished slightly as a consequence of reduced armaments. A special investigation by the Swedish Board of Trade shows that industry is planning an increase of 80 per cent in its investment during 1946. Owing to the continued scarcity of materials this programme will not be realized.

The most significant change that has occurred on the labour market during 1945, is the practically complete re-absorption of the demobilized forces into peace-time occupations. Between August 1944 and the same month of 1945 about 180,000 men (representing about 6 per cent of the working population) have been discharged from the Services without any considerable increase in the recorded unemployment. Female workers have not left the labour market to any considerable extent. During the period in question the man-power in industry has increased by at least 50,000 persons, or 9 per cent. The corresponding rise in the volume of production has been especially pronounced in regard to building materials for home consumption and wood, wood pulp and paper for export. Nevertheless, production in saw-mills and pulp-mills during 1945 has been some 30 per cent lower than before the war owing to lack of raw materials and coal. The changes in employment during the last year are shown in the following table :

TABLE III

Number of Workers in Different Branches of Industry 1944 and 1945

Industry	August 1944	Index : August 1944=100	
		August 1945	October 1945
Mining, Iron and Steel and Engineering	229,000	109	112
Cement, Stone and Clay	54,000	110	102
Wood and Wood Products	63,000	114	112
Paper, Pulp and Printing	55,000	123	125
Food Products	53,000	100	109
Textiles and Clothing	81,000	104	106
Leather, Rubber and Products	25,000	111	114
Chemical Products	23,000	102	102
Total	583,000	109	111

There exists as yet no reliable computation of the total volume of industrial production in 1945. An approximate calculation can be made in the following way. Assuming that the output per worker in the different branches of industry still remains as low as in 1942 (the latest year for which industrial statistics are available), the volume of industrial production last autumn must have surpassed the 1939 level by nearly 10 per cent. As definite signs can be adduced of a general improvement in industrial productivity since 1942, it is not wholly improbable that the actual volume of industrial production is between 15 and 20 per cent higher than immediately before the war.

A rise in wage rates and increased employment have, in spite of the strike in the engineering industries, caused an advance of 4 per cent in the total sum of wage payments from 1944 to 1945. In the latter year the aggregate incomes from wages, according to estimates drawn up by the Institute of Economic Research, were about 60 per cent higher than in 1939. The rise in the average hourly earnings of industrial workers during the same period is estimated at 46 per cent, as compared with an increase of 43 per cent in the cost-of-living index of the Social Board. The wage rates of farm workers, however, are 70—100 per cent higher than before the war, whereas the farmers have received an advance in their incomes of about 50 per cent. The last percentage refers only to income from agriculture; the farmers receive as a rule part of their income from other sources, *e.g.* from the forests and from gardening.

Present information about profits is rather scanty. The assessed incomes of all joint stock companies were 33 per cent higher in 1944 than in 1938; from 1943 to 1944 these incomes declined by 6 per cent. Such figures regarding net profits are, however, of a limited value, as they are influenced by principles of accounting differing from enterprise to enterprise and from year to year. In order to gain more satisfactory knowledge about actual profits the Price Control Board has therefore made a close study of the accounts of a number of industrial enterprises. The result of this investigation, which has covered the accounts of nearly 400 enterprises, representing about 45 per cent of the total sales of industry, indicates that gross profits increased by 63 per cent between 1938 and 1944. Between 1943 and 1944, however, there was a decline of 8 per cent. According to an alternative calculation with a different valuation of inventories, the rise in gross profits from 1938 to 1944 is estimated at 47 per cent. Taking account of taxes and such depreciations and disposals of profit as must be regarded as actual costs, the above-mentioned increase of 63 per cent is reduced to 23 per cent. These figures have to be compared with a 63 per cent rise in the total sales of the companies investigated between 1938 and 1944 and a general increase of 70 per cent in the wholesale industrial prices during the same period.

The rise in incomes has been accompanied by a considerable growth of consumption. According to the Institute's estimates, the value of total consumption has increased by 6 per cent between 1944 and 1945 and by 40 per cent from 1939 to 1945. The volume of total consumption approximately reached the pre-war level during 1945. The following table shows the changes in consumption during the war. It should be observed that the calculations are very approximate; comparisons with the sales tax reports make it probable that the rise in later years is somewhat over-rated.

Table IV

Fluctuations in Consumption 1939–1945

	Index : 1939=100						Per cent Change 1944 to 1945
	1940	1941	1942	1943	1944	1945	
Index of Value							
1. Foodstuffs	110	120	126	133	146	151	+ 3
2. Rent	102	103	107	110	114	119	+ 4
3. Heating and Lighting ...	130	149	168	164	169	174	+ 3
4. Clothing	101	110	114	141	141	168	+19
(*a*) Clothes	101	113	112	149	146	175	+19
(*b*) Shoes	102	97	123	107	115	137	+20
5. Household Goods ...	92	109	123	132	142	153	+ 8
6. Other Expenses	99	105	118	129	136	142	+ 4
7. Total Consumption ...	105	114	122	132	140	149	+ 6
Index of Volume							
Total Consumption ...	91	86	84	90	95	101	+ 6

There was a considerable reduction in stocks—both of raw materials and finished goods—in most fields of industry and trade during 1945. This decline is partly explained by the low average level of imports and the rapid expansion of exports taking place in the second part of the year. In addition the great investment activity and the comparatively high level of consumption have also contributed to this development. The decrease in stocks is to be regarded as a natural process in the transition from a war-time to a peace-time economy, though it implies that the high rate of exports in the autumn of 1945 cannot be maintained during 1946, if the volume of imports should not continue to increase. The same holds true of the volume of investment and consumption.

The general level of prices has, on the whole, been kept stable since the end of 1942 (with the cost-of-living index 43 per cent above the pre-war level) and no important changes occurred during 1945. The pressure from the growing demand has as a rule not been allowed to influence prices. The great scarcity of timber and wood has, however, caused a tendency to increased prices at the sales of standing timber. No appreciable price movements are foreseen for 1946. A possible tendency to falling prices caused by lower import costs—owing to lower freight rates for shipping—and increasing productivity, may be counteracted by increasing wage rates.

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CZECHOSLOVAK INDUSTRY AFTER NATIONALIZATION

1. *General Survey*

Czechoslovak post-war economy, like that of other European countries, is characterised by a series of shifting bottle-necks. Difficulties at one stage are removed only to expose new difficulties at a higher stage owing to the inability of coping with the increased supply. These problems of an expanding economy made themselves felt when coal production was raised from the low level reached towards the end of the war and in the first weeks after liberation, and the output of the mines soon exceeded the post-war carrying capacity of the railways. Again, as the transport bottle-neck is being overcome, industry finds that its coal and transport problems are being superseded by a shortage of raw materials, especially of iron and iron-ore. Underlying all these difficulties, is the low productivity of labour, in itself cause and effect simultaneously of the other factors. In mining, for example, reckless exploitation of the mines during the occupation, the high average age of miners and installations, unsatisfactory living conditions but sometimes also low working morale combined to lower efficiency and output. Insufficient supply of coal in its turn is one of the factors responsible for reduced productivity in other branches of industry.

It is because of these limiting conditions rather than because of direct war damage or shortage of man-power that industrial capacity is being utilized at present to the extent of about 50 per cent, according to the best estimate available. This figure constitutes an advance against the state of three months ago, when capacity was utilized at about 45 per cent. Any such average conceals, of course, considerable differences between the various industries, coal-mining and public utilities topping the list with building and allied trades at the other end of the range.

2. *Man-power*

The total number employed in industry was seven per cent higher in September 1945 than in 1935, the only pre-war year for which data are available. Since September last, the figure has been slightly increased. Over-all shortage of man-power can thus hardly be responsible for the low rate of production. Nor is mal-distribution of the labour-force its primary cause. The percentage distribution for the various branches of industry for 1936 and September 1945 is shown in Table I. Although no detailed comparison is possible because of differences in enumeration and classification in the primary data, the impact of war-time changes on the distribution of the labour-force stands out quite clearly. As against the distribution at the beginning of 1945, industrial demobilization has already had a marked effect, less through actual transfer than because of the higher rate of loss of war-time labour in the armaments sector. Since September 1945, readjustment to peace-time needs continued at an accelerated rate.

TABLE I *Percentage Distribution of Man-power in Industry*

Industry :	1935 %	(1945 Sept) %
Mining	9	10
Iron and Steel, Metal-working	20	35
Chemical	4	6
Wood-working	5	6
Textile	22	12
Clothing and Leather	8	8
Food	14	9
Paper and Printing	5	4
Miscellaneous	13	10
Source : Statisticky zpravodaj, 1946, No. 1.	100	100

3. *Productivity of labour*

Reduced output per man-hour is one of the post-war economic problems Czechoslovakia has in common with other European countries. To the extent, however, that basic bottle-necks are being overcome, the problem of labour-productivity is developing into the central problem of economic reconstruction. Table II shows the fall in productivity, as compared with the pre-war level, in some of those few branches where data are available. It is quite likely that conditions are worse in many other branches where production is not yet statistically recorded. Lack of statistical data and low efficiency are probably correlated.

TABLE II *Productivity of Labour*

	Output per man-shift					Output per man per day		Output per man-hour	
	Coal		Lignite			Boot industry		Cotton-spinning	
	tons	Index	tons	Index		pairs	Index	kg. of yarn	Indx
1937	1.45	100	2.60	100	1940	6.9	100	1.8	100
June 1945	0.51	35	1.51	58	June 1945	1.8	26	—	—
Oct. 1945	0.84	57	1.90	73	Oct. 1945	3.2	46	1.0	55

Reduced productivity is not entirely, nor even mainly due to post-war conditions. In Table III the fall in output per man-shift (or man-year) in mining during the occupation can be observed. The fairly regular pattern of the decline would suggest that it was due not to accidental factors but to inherent tendencies of the war-economy, in the main to increasing tiredness and exhaustion of the working population. This interpretation is born-out by the acceleration of the decline during the last two years of the war.

TABLE III *Productivity in Mining during the Occupation*

	Output per man-shift coal-mining		Output per man-year iron-ore mining	
	tons	1939=100	tons	1939=100
1939	1.094	100	410	100
1940	1.047	95	410	100
1941	.987	91	350	85
1942	.975	89	370	90
1943	.881	81	330	81
1944	.802	73	270	66

Table IV attempts to provide an estimate of the change in output per man-hour for industry as a whole. Any such estimate is of course liable to a considerable margin of error. Nevertheless, the Table would suggest that it is very unlikely that output per man-hour was maintained between 1939 and 1943 at the 1939 level; it may have been reduced by as much as 20 per cent. Judging from evidence of individual firms, the decline continued after 1943, probably at an accelerated rate. This was only to be expected since the factors responsible for the decline increased in importance in the concluding stages of the war.

TABLE IV *Output per Man-hour in Industry during the Occupation*

	1939	1943
(*a*) Gross value of industrial production	41.6 billions	61.8 billions
(*b*) Ditto (1938 equals 100)	100	149
(*c*) Price-index of industrial goods	100	123
(*d*) Index of real value of industrial production ...	100	122
(*e*) Index of man-hours worked in industry	100	135
(*f*) Output per man-hour	100	90

Note.—The official index of wholesale prices was adjusted in such a way that its three sub-groups (minerals, textiles and others) obtained weights corresponding to their importance in 1943. Without such an adjustment we would have obtained a larger fall in output.

4. *The Impact of Nationalization*

It is estimated that 60 to 70 per cent of total industrial capacity will come under the scope of the nationalization decree. The nationalized sector may even be larger if the small and medium-sized German and Hungarian enterprises now under provisional National Administration are fused with other already nationalized firms. In mining and public utilities, nationalization is virtually complete; on the other hand, in some consumers' goods industries, such as textiles, clothing and food, private enterprise may still account for half the total production.

It is too early, of course, to assess the direct effect of nationalization on output and productivity. But there is some evidence that productivity in certain nationalized industries is recovering rapidly. Table V shows the rise in coal output per man-shift since May 1945.

TABLE V *Output per Man-shift in Coal-mining*

	1937	1945					
	av.	May	June	July	Aug.	Sept.	Oct.
Tons	1.45	0.42	0.51	0.67	0.74	0.78	0.84
Index	100	29	35	46	51	54	58

Similar improvements were achieved in some other fields such as transport, where increased labour efficiency led to a considerable speed up in wagon turnover, which helped in easing the transport situation.

The latest index figures of output in basic industries, relating to autumn 1945, are, if we take 1937=100, about 85 for coal, 31 for iron and 54 for steel. The corresponding figures for France are: 94 for coal, 23 for iron, 31 for steel, and for Belgium: 70, 27 and 36 respectively.

It is believed in Czechoslovakia that the rise in productivity and the speed of recovery have been made possible by the comparative political and economic stability of which the passing of the Nationalization Decrees is both symptom and contributory cause.

Prague. December 1945 J. GOLDMANN.

TABULAR APPENDIX.

EDITORIAL NOTE

Tables relating to British economic developments, are given below. As far as possible 1938 is taken as the base year for index numbers. Absolute figures for any year are generally given as monthly or quarterly averages to ensure comparability. Detailed information about the different series can be found in the sources quoted.

Explanation of symbols used.
(. .) — figure is provisional or approximate.
N.A. — figure is not available.
— — figure is negligible.

A. ECONOMIC DEVELOPMENTS IN GREAT BRITAIN.

TABLE I

Employment by Industries in Great Britain

	Total					
Million persons employed	Mid 1939	Mid 1943	Mid 1945		1945	
				Sept.	Oct.	Dec.
1. Metal & Chem. Ind. ...	N.A.	N.A.	4.35	3.95	3.78	3.64
(*a*) for Civilian Use ...	2.04	0.92	1.21	1.64	1.85	2.33
(*b*) for Supply of Forces	N.A.	N.A.	3.14	2.31	1.93	1.31
2. Other Manufactures ...	N.A.	N.A.	2.58	2.64	2.69	2.75
(*a*) for Civilian Use ...	3.63	1.75	1.82	2.01	2.11	2.25
(*b*) for Supply of Forces...	N.A.	N.A.	0.76	0.63	0.58	0.50
Total Manufactures ...	*6.90*[1]	*7.85*[2]	*6.93*	*6.59*	*6.47*	6.39
% for Civilian Use ...	81	34	44	55	61	72
% for Exports	(14.5)	3.2	6.9	10.3	12.0	14.2
3. Basic Ind. and Services ...	4.68	5.03	5.11	5.12	5.11	5.11
(*a*) Agriculture, etc. ...	1.11	1.12	1.11	N.A.	N.A.	N.A.
(*b*) Mining and Quarrying ...	.87	.82	.80	.79	.78	
(*c*) Transport, Shipping, Fishing	1.27	1.19	1.26	1.29	1.29	
(*d*) Govt. Service (Nat.+Local)	1.39	1.79	1.82	1.81	1.80	
4. Building and Civ. Eng. ...	1.31	0.73	0.72	0.79	0.81	0.90
5. Distributive Trades ...	2.89	2.01	1.96	1.99	2.01	2.01
6. Other Services	2.11	1.51	1.49	1.50	1.51	1.54
Total Employed[3]	17.91	17.12	16.21	15.98	15.90	15.99

Source : *Ministry of Labour.*

[1] Including 1,27 million engaged in producing equipment and supplies for Forces.

[2] Including 5,18 million engaged in producing equipment and supplies for Forces.

[3] Excluding Forces and Auxiliary Services, Civil Defence and Police, and private domestic service.

Table II

Regional Distribution of Insured Persons and of Numbers of Registered Unemployed (000's).

	Insured Persons[1]			Registered Unemployed[2]			
July ...	1939	1943	1945	1939[3]	1943	1945	Jan. '46
London and S.E.	3,665	3,024	2,861	170	13.9	11.6	24.5
Eastern ...	737	729	676	37	2.3	2.1	8.6
Southern ...	629	669	619	43	1.8	1.7	7.7
S. Western	737	756	698	34	2.0	2.8	9.0
Midlands ...	1,501	1,534	1,378	82	2.4	8.1	24.0
North Midlands	1,098	1,051	979	71	1.7	2.0	9.3
North and Eastern	1,437	1,333	1,237	121	4.9	6.6	17.1
North Western	2.396	2,250	2,072	286	10.2	13.1	50.5
Northern ...	850	832	817	116	7.7	11.7	45.2
Scotland ...	1,650	1,555	1,463	190	16.7	22.0	63.7
Wales ...	687	721	678	106	9.7	21.3	68.2
Northern Ireland	348	370	358	70	17.2	N.A.	N.A.
Total ...	15,157	14,292	13,300	1,326	91	103[3]	329.5[3]

Source : *Ministry of Labour Gazette.*

[1] Estimated number of insured persons aged 14 and over under the General Scheme and the Agricultural Scheme in July in each Region as contributed in July 1945.

[2] Number of wholly unemployed persons registered at Employment Exchanges ; including casuals and temporarily stopped.

[3] Excluding Northern Ireland.

TABLE III

Symptoms of Investment Activity in U.K.

Monthly average rates	1938	1944	1945	1945 1st Qr.	2nd Qr.	3rd Qr.	4th Qr.
Output of Cement[1] ('ooo tons)	643	380	338	250	358	354	388
Index 1938 = 100	*100*	*59.1*	*52.6*	*38.9*	*55.7*	*55.1*	*60.1*
Output of Bricks[2] (million) ...	610	119	102	95	98	97	119
Index 1938 = 100	*100*	*19.5*	*16.7*	*15.6*	*16.1*	*15.9*	*19.5*
Home deliveries of Steel ('000 tons)	818	1,141	962	1014		864	955
Index 1938 = 100	*100*	*139.4*	*117.6*	*123.9*		*105.5*	*117.0*
Merchant Shipbuilding[3] ...	780[6]	995	1,476	1,091	1,238	1,359	1,476
Index 1938 =100	*100*	*127.6*	*189.2*	*139.9*	*158.7*	*174.2*	*189.2*
Commercial Vehicles[4] prod. (No.)	(4,201)	2,843	4,683	3,237	4,040	4,589	6,867
Index **1935**= 100	*100*	*67.7*	*111.5*	*77.1*	*96.2*	*109.2*	*163.5*
Deliveries of home-produced Machine Tools[5] (000 £'s)...	N.A.	7.064	N.A.	6,371	4,222	3,363	N.A.

Sources : *Board of Trade Journal, Accounts Relating to Trade of U.K.* and *Statistical Digest.*

[1] Figures relate to nearly all the firms in the industry.

[2] Great Britain.

[3] Thousand gross tons under construction at end of period (all ships of 100 gross tons and over, including merchant type vessels built for the Navy).

[4] Including omnibuses, but excluding service vehicles. For the base year 1935 the number of service vehicles cannot be separated out.

[5] Value of Metal and Woodworking Tools, Electric Motors and Welding Sets.

[6] These figures have been taken from Lloyd's Register and are not strictly comparable with the figures in the rest of the table. The Lloyd's figures refer to U.K. + Eire, and include certain non-propelled lighters.

TABLE IV

Coal Production and Employment

	1938	1944	1945	1944	1945			
	Quarterly Averages			4th qr.	1st qr.	2nd qr.	3rd qr.	4th qr.
Mined Coal—								
Saleable coal produced (000 tons) ...	56,748	46,025	43,471	46,819	45,497	43,687	39,672	45,029
Av. number of effective[1] wage earners (000's)...	N.A.	641.6	628.9	651.5	647.7	648.8	592.6	626.6
Opencast Coal[2]—								
Saleable coal produced (000 tons) ...	—	2,162	2,029	2,010	1,887	2,208	2,051	1,971
Av. Output per man-shift worked (tons)	1.14	1.00	1.00	1.01	0.99	0.99	0.97	1.02
Av. ditto at the face[3] ...	3.00	2.76	2.70	2.72	2.68	2.68	2.65	2.77

Sources : Ministry of Fuel and Power *Statistical Digest* and *Board of Trade Journal.*

[1] Effective numbers exclude those absent for the whole of any week.

[2] Government opencast operations were commenced in 1942.

[3] Additional categories included as workers at the coal face from 1943, causing apparent reduction in average output by about 4%.

TABLE V

Retail Sales and New Supplies of Certain Consumer Goods (1943=100).

	1938	1944	1945	1944		1945	
				Sept.-Oct.	Nov.-Dec.	Sept.-Oct.	Nov.-Dec.
Index Numbers of Retail Sales							
Total Sales	96	107	114	108	121	115	133
Food & Perishables...	90	105	110	103	106	105	115
Non-Food Merchandise ...	105	109	122	117	136	131	163
Index Numbers of New Supplies for the Home Civilian Market.[1]							
Footwear[1]	(140)	95	96	95	92	97	99
Other Clothing[1] ...	(190)	90	N.A.	94	84	103	N.A.
Furniture & Furnish'g[2]	(420)	124	N.A.	134	139	236	N.A.
Hardware[2]	(280)	94	N.A.	99	100	130	N.A.
Beer[3]	82	105	109	115	102	115	112
Spirits[4]	107	91	91	92	95	95	100
Tobacco[5]	86	99	105	97	99	114	114

Sources : *Board of Trade Journal* and *Monthly Digest of Statistics.*

[1] Based on coupon values.

[2] According to value at pre-war prices.

[3] Based on bulk barrels on which beer duty paid.

[4] Based on proof gallons on which duty paid.

[5] Based on net clearances mainly by manufacturers for home consumption.

TABLE VI PRICES

1. *Retail Prices*

	General Market Price Index	Ministry of Labour Cost of Living Index[1]					
	1944	1944	1945		1945		1946
	yearly av.	yearly av.	yearly av.	July	Sept.	Nov.	Jan.
	(av. 1938=100)	(av. 1938=100)					
Food	134½	120	121	125	120	120	120
Rent	102½	102½	103	104	104	104	104
Clothing	179½	165	166	166	165	165	165
Fuel and light ...	133	142	150	152	152	152	152
Miscellaneous ...	158½	166	166	166	167	167	167
ALL ITEMS	153½	129	130	133	130	130	130

Sources: Cmd. 6623 (see BULLETIN, Vol. 7, No. 14) and *Ministry of Labour Gazette.*

[1] Prices on 1st of month.

2. *Board of Trade Index of Wholesale Prices.*

(1938=100)	1938	1939	1940	1943	1944	1945	1946 Feb.
Basic Materials	100	107	159	187	198	201	199
Intermediate Products ...	100	102	139	164	168	173	182
Manufactured Articles ...	100	99	119	138	141	143	150
All Articles	100	101	138	161	164	167	169
Building Materials	100	101	117	144	147	150	156

Source: *Board of Trade Journal.*

3. *Average Values of Imports and Exports.*

(1938=100)	Imports			Exports		
	1939[1]	1944	1945	1939	1944	1945
Food etc.	99	166	182	104	171	192
Raw Materials ...	101	207	207	101	203	215
Manufactures ...	106	214	215	98	181	185
Total Imports ...	101	187	195	99	180	186

Source: Accounts relating to the Trade of the U.K.; Board of Trade Journal.

[1] Not strictly comparable owing to the inclusion of munitions, which are excluded from the 1944 and 1945 series.

TABLE VII

Ministry of Labour Index of Wage Rates.

	1944	1945	1945[1]					
	yearly av.	yearly av.	July	Aug.	Sept.	Oct.	Nov.	Dec.
Index (av. 1938=100	142½	149	150	151	151	151½	152	153

[1] Average rate at end of two successive months.

Table VIII

1. *U.K. Imports,[1] Exports[2] and Re-exports.*

£ million per month	1938		1945		1944 4 Qr.		1945 4 Qr.	
	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.
France and N. Europe ...	20.3	11.2	7.9	8.5	2.9	5.1	11.5	11.9
U.S.S.R.	1.6	0.5	0.3	1.1	2.1	0.4	0.1	0.3
Rest of Europe	4.0	2.7	2.6	1.9	1.8	1.0	2.4	2.4
Africa	5.1	6.1	8.5	6.9	9.1	6.6	7.4	7.2
Asia	10.3	6.5	7.7	4.7	9.3	4.1	9.9	6.6
Oceania	10.1	4.9	9.3	4.1	7.2	4.0	6.7	4.5
N. America	16.6	3.7	43.7	3.5	63.0	4.0	25.6	3.5
C. Am. and W. Ind. ...	2.9	0.9	4.2	0.7	4.3	0.5	3.7	0.9
S. America.	5.8	2.9	7.5	1.3	9.6	1.0	9.6	1.4
Total British Countries	30.9	19.6	43.4	17.8	43.6	16.1	40.6	20.8
Re-exports	1.0		0.3		0.2		0.3	
Total Foreign Countries	45.7	19.7	48.4	15.0	66.4	10.6	36.5	17.9
Re-exports	4.2		3.9		2.6		3.9	
Total All Countries ...	76.6	39.2	91.8	32.8	110.0	26.7	77.1	38.7
Re-exports	5.1		4.2		2.8		4.2	

Source : *Accounts relating to Trade of the U.K.* and *Board of Trade Journal.*

[1] Total Imports. [2] Exports of U.K. Produce and Manufactures.

2. *United Kingdom Imports of Certain Commodities*

(Thousand tons per month)

Commodity	1938	1944	1945	1944 July-Dec.	1945 July-Dec.
Wheat and flour	455	301	341	311	367
Maize and feeding stuffs ...	411	19	59	30	42
Meat of all units	129	149	97	137	85
Butter	39	13	16	8	14
Fresh Fruit and Vegetables ...	176	21	38	10	22
Tobacco	13	9	14	11	10
Iron ore[1]	425	181	340	159	382
Cotton[2]	43	30	32	28	33
Wool[2]	23	19	16	15	20

Source : *Accounts relating to Trade of the U.K.* and *Monthly Digest of Statistics.*

[1] Other than manganiferous ore. [2] Retained Imports.

3. *Exports of Produce and Manufactures of U.K.*

Index numbers of volume per month.

Class of Article :	*1938*	*1944*	*1945*	*1944 4 Qr.*	*1945 4 Qr.*
Food, drink and tobacco	100	37	81	60	86
Coal	100	7	8	6	13
Machinery	100	42	46	48	49
Cotton yarn and manufactures	100	33	34	37	34
Woollen and worsted yarns and manufactures	100	30	40	33	44
Silk and artificial silk yarns and manufactures	100	130	131	153	115
Chemicals	100	80	103	86	114
Vehicles..	100	15	22	25	34
Articles mainly or wholly manufactured ..	100	35	45	40	53
All Exports	100	31	45	37	55

Source : *Accounts relating to Trade of the U.K.*

TABLE VIII

4. *Retained Imports, Exports of U.K. Produce and Balance of Merchandise Trade.*

Monthly Average. Value : £ million. Index : 1938=100.	1938	1939	1944	1945	1946 Jan.
Ret. Imports Value	71.5	70	107.6	87.6	91.9
Vol. Ind.	100.0	96.8	80.2	63.0	N.A.
Exp. of U.K. Produce	39.2	36.6	22.1	32.8	57.1
Vol. Ind.	100.0	94.3	31.4	31.0	N.A.
Balance of Merch. Tr. (Value) ...	32.3	33.4	85.1	54.8	34.8

Source : *Accounts relating to Trade of the U.K.*